

REMARKS

The Office Action of **October 9, 2002**, has been received and its contents carefully noted. In response thereto, the Applicant has amended claim 9 to be consistent with the teachings of the specification at paragraphs [0027], [0079] and [0096] as suggested by the Examiner. Further, a typographical error has been corrected in formula 3 at paragraph [0056] where the “f” was inadvertently left out. For reference, please see paragraph [0046] of the priority document JP 2000-072201, from which the present specification was prepared and corresponding formula (1) of the Kakizaki et al. U.S. Patent Application Publication 2001/0004371, referred to below. In view of these actions and the following remarks, further consideration of this application is now requested.

Claims 1-15 stand provisionally rejected, under the judicially created doctrine of obviousness-type double patenting, over claims 1-3 and 9-11 of U.S. Patent Application No. 09/741,079 (now U.S. Patent Application Publication 2001/0004371) combined with the teachings of Leinhos et al ('110). This rejection is respectfully traversed since the claimed invention operates with a laser pulse waveform having a bifurcated form as defined in the formula in claims 1, 12 and 14, and as **such the laser pulse waveform is varied over time**. This feature, described in detail at least at paragraphs [0017], [0030]-[0034] and [0088]-0093], is not taught or even remotely suggested by Leinhos.

Specifically, the Leinhos reference is concerned with calibration of an emission wavelength, and, as such, the wavelength of the energy of the output of the beam is monitored, as described in column 2, lines 16-62; column 3, lines 9-34; and claim 1, for example. That is, Leinhos relates to a spectral waveform dependent on the wavelength (as in Figure 3) and not on the laser pulse waveform changing with time as presently claimed. To put it simply, the presently claimed invention is concerned with a the “input side” of a laser; while Leinhos is concerned with the “output side” of

a laser and as such has nothing to do with the claimed invention or the invention of claims 1-3 and 9-11 of the '079 Application. Since neither the '079 Application or the Leinhos reference teaches all of the features of the rejected claims, nor suggests modifying of the claimed subject matter of the '079 Application to arrive at laser pulse waveform that is varied over time as presently claimed, a *prima case* of obviousness has not been set forth by the Examiner in the provisional obviousness-type double patenting rejection, see MPEP Chapter 804(II)(B)(1). Consequently, the Applicant respectfully requests withdrawal of the provisional obviousness-type double patenting rejection.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with applicant's representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Lastly, it is noted that a separate Extension of Time Petition (one month) accompanies this response along with a check in payment of the requisite extension of time fee. However, should that petition become separated from this Amendment, then this Amendment should be construed as containing such a petition. Likewise, any overage or shortage in the required payment should be applied to Deposit Account No. 19-2380 (740145-195).

Respectfully submitted,



David S. Safran
Registration No. 27,997

NIXON PEABODY LLP
8180 Greensboro Drive, Suite 800
McLean, Virginia 22102
(703) 770-9300
DSS/JWM

MARKED-UP VERSION OF AMENDMENT

In the Specification:

Please replace paragraph [0056] with the following:

$$-- T_{im} = (\int T(t) dt)^x / \int (T(t))^x dt \quad (3)$$

where T(t) is the instantaneous laser waveform. --

In The Claims:

Please amend claim 9 as follows.

9. The ArF excimer laser device as claimed in claim 1, wherein reflectivity of an output mirror of a beam resonator located in the laser chamber is at least [does not exceed] 50%.